

Loss and Damage as an Alternative to Resilience and Vulnerability? Preliminary Reflections on an Emerging Climate Change Adaptation Discourse

Alexander Fekete · Patrick Sakdapolrak

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Abstract One relatively novel way of assessing the characteristics and limitations of resilience and vulnerability (R&V) is undertaken in this article by investigating a growing alternative paradigm—loss and damage (L&D) policy. The idea of L&D as an emerging policy may be surprising to many in the disaster risk management community, and so we first outline the origins of this trend, and then explore the potential benefits and pitfalls of adopting it. This short article represents our preliminary opinions and observations regarding this reintroduction of a long-established concept. We also present results from a very brief peer-group survey on some of the first immediate reactions towards L&D policy. At this early stage, this article cannot offer a full-fledged analysis, but our reflections may serve as a starting point to encourage further discussion.

Keywords Climate change adaptation · Loss and damage · Resilience · Vulnerability

1 Background

In February 2013, around 50 authors from the upcoming 5th assessment report of the Intergovernmental Panel on Climate Change (IPCC)—international scholars and experts from various fields dealing with climate change—gathered for a

three-day workshop in Bonn hosted by the United Nations University Institute for Environment and Human Security (UNU-EHS) to discuss the question of how to deal with the consequences of climate change. While the fact that experts, scholars, and policy-makers meet to discuss this issue might not be remarkable, the interesting aspect of this workshop was that the umbrella theme was loss and damage (L&D). The L&D policy was formally introduced into the United Nations Framework Convention on Climate Change (UNFCCC) climate negotiations during the 16th Conference of the Parties (COP 16) in Cancun, Mexico, 2010 (Warner and Zakieldeen 2012; Warner et al. 2012). The decision was made to establish the work programme on L&D under the Subsidiary Body for Implementation (SBI). During the COP 18 in Doha, 2012, one aim formulated was to establish institutional arrangements for addressing L&D before the 19th COP meeting in Warsaw, 2013. Within the space of only a few years, climate adaptation policy has brought a new issue to the table and must now create and establish a new climate policy regime to deal with L&D. The meeting in Bonn was part of the L&D in vulnerable countries initiative (see <http://www.lossanddamage.net>), which has produced a considerable body of material (policy briefs, working papers, and research reports). The aim of the meeting, as Söhnke Kreft, one of the organizers of the workshop put it, was to introduce this new policy construct to the scientific community and to initiate and intensify the communication between science and policy on the emerging agenda of the climate negotiation process. Overview papers (Roberts 2012; Warner and Zakieldeen 2012; Warner et al. 2012; Oliver-Smith et al. 2013), as well as case studies (see <http://www.lossanddamage.net/empirical-research>) on the new usage of L&D are now emerging. A review of the genealogy and reintroduction of L&D in this context is provided by a recent paper by Wrathall et al. (accepted). In order to link this

A. Fekete (✉)
Risk and Crisis Management Section, Cologne University of
Applied Sciences, 50679 Cologne, Germany
e-mail: alexander.fekete@fh-koeln.de

P. Sakdapolrak
Department of Geography, University of Bonn, 53115 Bonn,
Germany

Are there alternative key terms to resilience or vulnerability in DRM that you may prefer in the future?

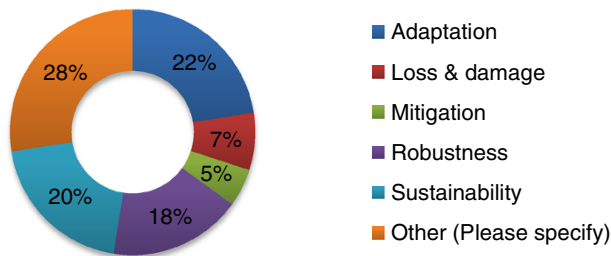


Fig. 1 Survey results on Question 1, N = 40 (10 respondents skipped the question)

Would a focus on loss & damage due to disasters or climate change be a viable alternative to resilience or vulnerability?

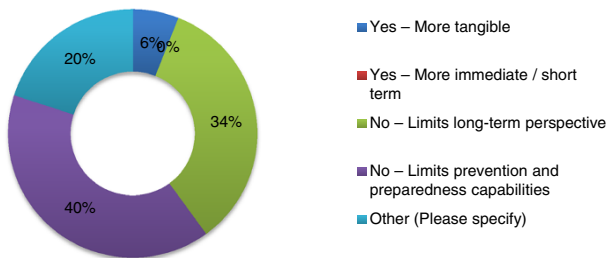


Fig. 2 Survey results on Question 2, N = 40 (2 respondents skipped the question)

topic with our special issue on resilience and vulnerability (R&V), we have included a peer-community survey about the differences between R&V and L&D.

2 What is the Story Line of Loss and Damage?

The L&D policy paradigm has gained momentum, and it now seems that negotiations over some sort of mechanism of implementation will be virtually inevitable. The repeated narrative goes more or less as follows: with the realization of the human impact on climate, the global community first focused on activities to mitigate climate change. After the scientific and policy community realized that mitigation efforts might be insufficient to prevent climate change and the negative impacts associated with it, the discussion was broadened to include adaptation to climate change as a complement to mitigation efforts. This became apparent in documents such as the IPCC 4th Assessment Report in 2007. The current state of the narrative has reached the point where it is now stated that the former aim to stabilize the global temperature increase at around 2 °C will not be met, that the limits of human adaptability will be reached, and that L&D due to climate impacts will be inevitable. The logical consequence of

this development is—according to the narrative—that we must now engage with the L&D paradigm. In the summary report of a multicountry study on L&D, Warner et al. assert that L&D “is a new concept in climate change research,” and they propose the following working definition: “Loss and damage refers to the negative effects of climate variability and climate change that people have not been able to cope with or adapt to” (Warner et al. 2012, p. 20).

3 How Does This Concept Differ from Resilience and Vulnerability?

Looking at L&D from a vulnerability perspective, the novelty of the concept is not immediately apparent (see survey results below). If we understand vulnerability as a social process, L&D can be conceptualized as the negative outcomes of exposure to environmental hazards and the lack of capacity to manage them. L&D, in this context, is a specific description of the impacts of climate change, which can result in further vulnerabilities. Losses and damages set important starting points and evaluation benchmarks for disaster risk research and management. From a resilience perspective, L&D could refer to negative impacts on or injuries sustained by some components of a system in the course of absorbing stress and maintaining essential system functions and structure. The adverse effects that result as stress overwhelm human or ecological systems, or catastrophically drive them into new phases of collapse, reorganization, and reconstitution that could also constitute L&D (Gunderson and Holling 2002). L&D, then, refers to a state or condition that is an integral part of vulnerability and resilience analyses. The range of impacts can be clarified by accounting for the various types of direct and indirect, tangible and intangible L&Ds. However, practical implementation of L&D policy will face the same conceptual and operational challenges that such assessments have met in the past: for instance, the limitations on what kinds of impacts are quantifiable or “measurable”; the problems associated with cost-benefit or willingness-to-pay approaches; issues of insurability; the challenges of including cultural, institutional, or other “soft” values; and the implications for compensation, liability, rehabilitation, and reparation (Wrathall et al. accepted). The following reflections deal with some of the implications—the good, the bad, and the logical—of this new focus on L&D.

4 What are the Benefits of Focusing on Loss and Damage?

L&D are much simpler and more tangible terms for everyone to understand—policy-makers, the public,

practitioners, and scientists—especially since the progress of the climate negotiations under the IPCC seems slow or even uncertain. R&V are relatively difficult concepts and L&D could offer a more straightforward and promising way forward. L&D can be considered a powerful indicator, or metric, of social vulnerability, displaying the impact of climate change in a visible and concrete form, and thereby supporting the acknowledgment that climate change is already happening.

One compelling argument for using L&D terminology is its simplicity and tangibility. Policy-makers and other decision-makers, including scientists or science-funding agencies, demand summaries, brief abstracts, and simplified methods, concepts, and headlines. It is important to note, however, that there are potential problems associated with simplification. The challenge, as Einstein apocryphally said, is to make things “simple, but not more simple than necessary,” and so it is important to remember that the use of the L&D concept comes with the risk of oversimplifying and watering down the true complexity of climate change processes and impacts.

5 What are the Pitfalls of a Focus on Loss and Damage?

Hazards causing L&D reemerge as a central aspect of the analysis. This seems odd when viewed from a vulnerability perspective, which has departed from a critique of the hazard paradigm and has argued that there is nothing “natural” in natural catastrophes (O’Keefe et al. 1976), but rather that they must be interpreted as crises that merely reveal a latent social condition. Considerable sections of certain vulnerable groups lack the capacity to cope with and adapt to climate stress, and are already experiencing L&D under current conditions. A similar paradigm shift occurred in resilience research as emphasis moved away from (natural) hazards and towards impacted individuals and provisioning systems (Turner et al. 2003). A shift from a focus on threat to a focus on social or national resilience can be observed in the U.S. homeland security policy after Hurricane Katrina, especially with respect to critical infrastructure policy (Koski 2011). But many other countries have also undergone a paradigm shift in their national security policy, often from a single-hazard to a multiple hazard, or even a so-called “all-hazard” approach (FEMA 1996). This often implies a shift towards emphasizing the capabilities of the affected systems: for instance, those of people or communities (Murphy 2007; Keck and Sakdapolrak 2013), or of society or nations (Edwards 2009; U.S. NRC 2012) to “make cities resilient” (UNISDR 2012), to protect (U.S. Government 1996), or to increase the resilience of infrastructures (Koski 2011). In all these

approaches and policies, losses and damages are just the benchmarks of disaster evidence embedded in a long-term holistic risk management or governance process.

Another example of the pitfalls of focusing on single extreme events within a chain of processes is provided by climate change. Climate variability represents a stress that is cumulative and compounding, incremental, unstable, and dynamic. L&D that appears to occur due to extreme (and therefore readily detectable) individual peak events is inadequate for assessing broader climate change impacts and slow-onset processes. It is a challenge to attribute losses, damages, and risks to particular discrete events in any case. L&D also bears the risk that direct, tangible, measurable, countable, monetizable dimensions of L&Ds will be prioritized over indirect, intangible, implicit, underlying, or invisible dimensions. Moreover, L&D is concerned with the situation in which disaster is already manifest, which generally entails a postdisaster perspective on emergency and recovery measures.

6 What are the Logical Implications of Loss and Damage?

Many scholars contributing to and mobilizing the L&D story line have come to the conclusion that more adaptation and mitigation measures are needed. And yet L&D presumes that mitigation and adaptation are conceptually insufficient to describe the entire range of processes that drive climate change and its feedback effects on human society. L&D, as a concept, refers to something new and different. In our opinion, the logical next step is to address the issues of liability and compensation, which is fundamentally about assigning responsibilities for damage and triggering a mechanism for the (re)deployment and (re)distribution of resources. Through this discussion the important issue of climate justice can be pushed higher on the agenda.

In some respects, there is a danger that L&D may become rather like the emperor’s new clothes, both because of its buzzword character and for implying novelty where there is none. This may be used as an act of misdirection to conveniently draw attention away from the notions of “liability” and “compensation”—words that some countries would have an interest in avoiding discussing at the Conferences of the Parties (COP) on Climate Change. In this way, scientists and scientific knowledge unwittingly become a political tool for justifying one policy approach against another. The Keystone Conference in Bonn, October 2012, and the UNU-EHS L&D workshop in Bonn, February 2013, are examples of cooperation between applied science and policy. Alternatively, some countries, impatient with the slow nature of IPCC reporting and

UNFCCC policy-making, have demanded specific types of evidence for climate change impacts. This is another model for science/policy cooperation.

The logical implications of a L&D paradigm appear to be balanced out between the well-known pitfalls and the evident benefits of L&D in research. But L&D policy in the context of climate change adaptation (CCA) will still have to reveal what kinds of interest- and policy-groups are involved, what their intentions are, and the role science can play in advising them on the potential pitfalls and misuses of the concept of L&D, as well as on its benefits and opportunities.

7 How Does the Disaster Risk Management/Disaster Risk Reduction Community View Loss and Damage as an Alternative to Resilience and Vulnerability?

In a peer-community survey of participants of the symposium (KatNet Symposium, November 2013, Bonn, Germany) conducted by the first author, we asked for suggestions regarding the potential usage, usefulness, and limitations of R&V (see also Fekete et al. 2014), and also about the usefulness of the concept of L&D. The community consisted mainly of scientists and some practitioners from the field of disaster risk management in Germany, as well as a few from Austria and Switzerland. Out of the 86 participants, 40 replied to our survey; 71 % were scientists, 13 % practitioners, and 16 % “other” (not specified). There are a number of limitations concerning the survey. The survey design implies a direct comparison of R&V with L&D. While R&V frameworks employ certain key components that are also used in risk or climate change research, such as coping/adaptive capacities and robustness, there are also many components in these fields that do not overlap. However, in the survey we mainly intended to find out whether our peers would regard L&D as an alternative paradigm to R&V. L&D was not a topic discussed at the symposium, however; the participants were not informed about the discussions on L&D at the workshops we attended. We therefore chose to ask about possible alternatives to the key terms R&V, rather than enquiring about L&D as a new policy. Our questions are an imperfect compromise, and the results reflect somewhat the vagueness of the questions (Figs. 1, 2; Tables 1, 2). The picture presented here by the survey may not be reflective of the general situation, and the numbers should not be taken to have any kind of statistical validity. The survey offers a snapshot of the perspectives and understanding of a specific R&V community; one that has adopted a paradigm in which they do not only focus on the hazard or extent of damage, but also include further explanatory concepts, such as vulnerability and resilience.

Table 1 Some of the qualitative answers of the survey regarding loss and damage as an alternative to resilience and vulnerability mentioned by the respondents under “other” and not included in Fig. 1

Question 1: Are there alternative key terms to resilience or vulnerability in DRM that you may prefer in the future?

- No
- Coping capacity/adaptive capacity
- Risk
- Threat as a traditional military point of view, harm, danger
- No, those are the right terms
- All those words mentioned above already have a certain meaning in certain contexts; they cannot just be exchanged so easily; all of them can be used, but only for special research/practical questions
- I do not see the other terms as appropriate key terms, as they are all somehow related
- Vulnerability/resilience in a different sense
- No further new key concept that turns into a buzzword, please! The listed alternatives are distinct concepts themselves that have linkages to vulnerability/resilience, but should not replace it
- Only when something different is viewed

Table 2 Some of the qualitative answers of the survey regarding loss and damage as an alternative to resilience and vulnerability mentioned by the respondents under “other” and not included in Fig. 2

Question 2: Would a focus on loss & damage due to disasters or climate change be a viable alternative to resilience or vulnerability?

- No, because it lacks a perspective on processes and might focus on quantifications only
- No, we need the theoretical concepts of vulnerability and resilience to understand the key drivers for loss and damage
- No, not in general. A focus on loss and damage makes sense when this is necessary for answering a certain question. Resilience is a concept that in itself stands for a broader situation in a system, from my perspective focusing on the strengths of a society/system
- No, vulnerability is more than loss & damage; resilience does not mean loss & damage
- Cannot see the added value at the moment
- Military thinking normally isn't based on causes
- Financial connotation/misses social factors of DRM
- It is not an alternative; focus on loss & damage may help to better understand/validate vulnerability/resilience
- To us, the question is just the other way around: the focus should be on integrating/combining vulnerability and resilience to arrive at more holistic assessments of impacts (=loss and damage, tangible/intangible, direct/indirect, multiple dimensions...)
- Limits prevention and preparedness capabilities
- Societal origin of disaster
- Better standardization and comparability of analysis results; “operational applications”

The answers show that adaptation, sustainability, and, interestingly, robustness are regarded as alternative key terms, to those of resilience or vulnerability. Replies suggesting “L&D” as an alternative term are relatively low.

The answers show that, overall, a focus on L&D is not regarded an alternative to resilience or vulnerability. There is a notable highlighting of certain negative connotations of L&D, such as that, in contrast to resilience or vulnerability, it limits the long-term perspective, or limits capabilities of prevention.

Some of the qualitative answers to both questions express difficulties of comparing those individual terms. This is related to the imperfections in our survey questions. But it was also our intention not to inform the survey participants on the role of L&D as a policy beforehand. Rather than rephrasing or attempting to analyze the results of the survey at this stage, this article presents them simply as a record of individuals’ reactions on being introduced to L&D as “new” or “alternative” wording, and to provide a stimulus for future discussions.

We do however interpret the qualitative responses to display typical views on the benefits of R&V and the classic role and limitations of L&D in DRM. L&D does not yet seem to be known or recognized as a “new emerging paradigm,” and it appears that there is considerable emphasis on the potential negative effects of switching from a resilience or vulnerability perspective to one based on the concepts of L&D. If L&D does take off as the new “buzzword” in CCA and, perhaps, in disaster risk management, it will be interesting to compare the survey participants’ views in a few years’ time.

Our findings and the responses to our brief survey reflect the uncertainties involved in dealing with the L&D concept at this early stage. As scientists we have hardly begun to understand some of the benefits and challenges that concepts such as resilience or vulnerability might offer for research or practice, and losses and damages are already part of this approach. R&V, however, has matured from being simply an accounting of losses and damages, and is now a much more useful, holistic, and comprehensive tool of assessment—in our opinion. In a positive sense, the doubts expressed in our mini-survey may be a stimulus for scientists to rethink the pros and cons of both R&V and L&D as conceptual approaches. For policy-makers, and, more importantly, for those people affected by disaster and the adverse effects of climate change, L&D might prove to have far more immediate impact and relevance.

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